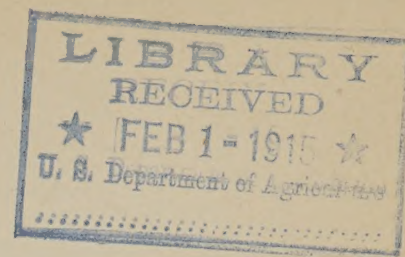


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NEWS LETTER



OF THE

BUREAU OF ENTOMOLOGY

U. S. DEPARTMENT OF AGRICULTURE.

NUMBER 8

NOVEMBER, 1914.

NEW BOOKS IN LIBRARY.

- British Columbia. Proceedings of the Entomological Society, new series, no. 4, Jan. 1914. 83p.
- Brumpt, E. *Precis de parasitologie*. 2d edition. Paris, Masson, 1913. 1011p. illus.
- Fletcher, T. Bainbrigg. Some South Indian insects and other animals of importance. Madras, Printed by the Superintendent, Government press, 1914. 565p. illus., col. pl. (A copy has been ordered for the Library; until it comes Dr. Howard's personal copy is available for consultation). Price 9 shillings.
- Graham-Smith, G. S. *Flies in relation to disease- nonbloodsucking flies*. Cambridge; at the University press, 1914. 2d edition. 389p.
- Bibliography: p. 351-375.
- Great Britain. Board of Agriculture & Fisheries. Annual report of the Horticulture Branch. Proceedings under the Destructive Insects and Pests Acts, for the year 1913-1914. London, 1914. 79p.
- Journal of economic biology, London, v. 9, no. 3, Oct. 1914. Wardle, R. A. Preliminary observations upon the life-histories of *Zenillia pexops*, B. & B., and *Hypamblys albopictus* Grav. (two previously unrecorded parasites of the large larch saw-fly), p. 85-104, pl. IV-VI. Johnson, J. W. Haigh. A contribution to the biology of sewage disposal, p. 105-126. illus.
- Lochhead, William. A synopsis of economic entomology. Macdonald College (1914) 113p.
- Reuter, O. M. *Lebensgewohnheiten und Instinkte der Insekten bis zum Erwochen der sozialen Instinkte...* revidierte A. u. M. Buch. Berlin, Friedlander & Sohn, 1913. 448p. illus.
- Literaturverzeichnis: p. 369-430.
- Stebbing, E. P. *Indian forest insects of economic importance- Coleoptera*. London, Eyre & Spottiswoode, Ltd., 1914. 648p. illus., plates.

BUREAU PUBLICATIONS.

Technical Series Bulletin No. 17, Part II, "II. Preliminary Classification of the Superfamily Scolytoidea," by Dr. A. D. Hopkins, is in the press and will be issued shortly.

Bulletin No. 94, Part II, "Biology of the Termites of the Eastern United States," by Thos. E. Snyder, is in the press and will be issued probably before the close of the year.

Bulletin No. 127, Contents and Index is in press and will be issued before the close of the year.

The index to Bureau Circulars 101 to 173, inclusive has been in preparation for some time and will soon go to press.

BEE CULTURE INVESTIGATIONS.

E. F. Phillips, In Charge.

E. F. Phillips returned recently from a trip on which he attended meetings of the State beekeepers' associations in Indiana, Illinois, Iowa and Wisconsin.

It is proposed hereafter that the State meetings of beekeepers be held in close succession so that it will cost less in time and money for outsiders to attend several or all of these meetings. Mr. Frank C. Pellett, President of the Iowa Beekeepers' Association, Atlantic, Iowa, is arranging a schedule for next year.

Mr. Chas. Whitlock has been given a temporary appointment to assist in the work on wintering during the present season.

CEREAL AND FORAGE INSECT INVESTIGATIONS.

F. M. Webster, In Charge.

STAFF OF CEREAL AND FORAGE INSECT INVESTIGATIONS.

REVISED TO DECEMBER 1, 1914.

WEST SPRINGFIELD, MASS: *

Harrison E. Smith (Mass.) in charge.

* After January 1, 1915.

HAGERSTOWN, MD:

James A. Hyslop (N. J.))	
)	Associates in charge.
W. R. McConnell (Pa.))	
W. E. Pennington (Md.)		
P. B. Myers (Pa.)		
Harry L. Parker (S. C.)		

COLLEGE PARK, MD:

A. B. Gahan (Kansas) in charge.

COLUMBIA, S. C:

Philip Luginbill (Ohio) in charge.
A. H. Beyer (Kans.)

CHARLOTTESVILLE, Va:

W. J. Phillips (Va.) in charge.
Henry Fox (Pa.)
W. T. Emery (Kans.)

NASHVILLE, TENN:

Geo. G. Ainslie (Minn.) in charge.
C. C. Hill (Mass.)

CEREAL AND FORAGE INSECT INVESTIGATIONS. (Continued).

① LAFAYETTE, IND:

J. J. Davis (Ill.) in charge.
A. F. Satterthwait (Pa.)
J. M. Aldrich (S. D.)
R. J. Kewley (Utah)
D. G. Tower (Mass.)

CHARLESTON, MO:

E. H. Gibson (Mich) in charge.
Geo. W. Barber (Mass.)

ELK POINT, S. D:

C. N. Ainslie (Minn.) in charge.

GREENWOOD, MISS:

C. F. Turner (Kans.) in charge.
J. M. Langston (Miss.)

WELLINGTON, KANS:

E. O. G. Kelly (Ky.) in charge.
J. S. Wade (Kans.)
W. H. Larrimer (Ohio)
T. S. Wilson (Kans.)
C. M. Packard (Mass.)

BROWNSVILLE, TEX:

R. A. Vickery (Minn.) in charge.
C. L. Scott (Okla.)

TEMPE, ARIZ:

V. L. Wildermuth (Ohio) in charge.
D. L. Caffrey (Conn.)
F. H. Gates (Colo.)
L. J. Hogg (Mass.)

GAINESVILLE, FLA:

R. N. Wilson (Colo.) in charge.

SALT LAKE CITY, UTAH:

Geo. I. Reeves (Ill.) in charge.
T. R. Chamberlin (Utah)
P. B. Miles (Colo.)
S. J. Snow (Utah)
L. J. Bower (Tex.)

SALT LAKE CITY, UTAH: (Parasite Laboratory):

P. H. Timberlake (N. H.) in charge.
L. P. Rockwood, (Mass.)

CEREAL AND FORAGE INSECT INVESTIGATIONS (Continued).

FOREST GROVE, ORE:

C. W. Creel (Nev.) in charge.
M. M. Rheer (Ore.)

PASADENA, CALIF:

T. D. Urbahns (Colo.) in charge.
E. L. Barrett (Utah)

WASHINGTON, D. C:

F. M. Webster (Ill.) in charge.
W. R. Walton (Pa.)

DECIDUOUS FRUIT INSECT INVESTIGATIONS.

A. L. Quaintance, In Charge.

Mr. E. B. Blakeslee has returned to Washington from his field headquarters, Winchester, Va., where he has been engaged in investigations of the peach borer.

Mr. E. W. Geyer will arrive in Washington in late November from his headquarters, Roswell, N. Mex.

Mr. A. J. Ackerman, engaged in nursery insect investigations, West Chester, Pa., will make observations on fumigation methods as practiced in nurseries, paying especial attention to the construction of the fumigatorium, dosage and other questions of practical importance.

FOREST INSECT INVESTIGATIONS.

A. D. Hopkins, In Charge.

The discovery of the presence of the European pine shoot moth (*Evetria buoliana*) in this country was referred to in a previous number of the News Letter. Since then the investigation of the many phases involved in its introduction, location and prospects of establishment and eradication has been vigorously prosecuted in cooperation with the Federal Horticultural Board under the general direction of Dr. Hopkins. Following Mr. Busck's brief field studies, Mr. Carl Heinrich made a more extensive tour of the New England and North Atlantic States in pursuit of the trail which led from some of the nurseries studied. On the strength of the information thus far gathered a mimeographed four page circular letter was issued and widely circulated among conifer importing nurserymen and estates, and inspectors. Following this, Mr. Heinrich, under authorization of the Federal Horticultural Board and direction of Dr. Hopkins, has made a four weeks' tour of nurseries and estates in Pennsylvania, West Virginia, Ohio, Illinois, Indiana, Kentucky, Tennessee, North Carolina, and Virginia in search of evidence of the European pine shoot moth. While *Evetria buoliana* was found in isolated localities in nurseries, there was no evidence of any extensive distribution as yet. He was instructed to make observations on any other nursery or forest insects in his path, and has made many notes of interest and value. Mr Heinrich has just returned from this trip.

FOREST INSECT INVESTIGATIONS (Continued).

Mr. E. R. Speyer, the Carnegie Scholar assigned by the Imperial Bureau of Entomology to study Scolytidae and methods of controlling them with Dr. Hopkins, is at present touring the forest insect field stations. His letters indicate a successful trip.

Mr. H. G. Champion of the University of Oxford and the Indian Imperial Forest Service is spending a year in the United States of America as a Carnegie Student to study injurious forest insects and methods of controlling them with Dr. Hopkins. He will remain in Washington during the winter preparatory to visiting the forest insect field stations located in Colorado, California, Oregon and Montana to familiarize himself with field methods with special reference to practical control work against the *Dendroctonus* and other Scolytid beetles. While Mr. Champion is a forester, the importance of protecting the forests of India from insect depredation is realized; therefore the object of his trip is primarily to study methods of control as worked out and practiced in America.

PREVENTING SPREAD OF MOTHS.

A. F. Burgess, In Charge.

On October 23, 1914, the SECRETARY of Agriculture declared a quarantine on all shipments of stone and quarry products from the gipsy-moth infested area in New England to uninfested territory.

Material of this sort cannot be accepted by transportation companies unless it has been inspected and certified to be free from the gipsy moth. The work is being carried on in connection with the quarantine division of the gipsy-moth work by Mr. D. M. Rogers.

This quarantine should effectively prevent the distribution of this dangerous insect on shipments of stone and quarry products, and it is an important step in the campaign which is being carried on to prevent its spread.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS.

W. D. Hunter, In Charge.

T. E. Holloway reports some striking results from the experiments, to determine the effects of the burning of sugar-cane trash during the fall, on the sugar-cane borer and its parasites. The infestation by the borer was found to be much lighter where the trash was not burned. Presumably this is due to the fact that the burning of the trash destroys large numbers of parasites.

B. R. Coad has completed the work of the season on the *Thurberia* weevil and has returned to Washington.

A. C. Morgan visited Tampa, Fla., in connection with experiments on the cigarette beetle.

R. W. Howe has been detailed for temporary service at the New Orleans laboratory. He will return to Tallulah about the first of December.

T. C. Barber, of the experiment station at Tucuman, Argentina, who has been in New Orleans for some weeks is about to return to his post.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS (Continued).

The outbreak of Alabama argillacea during the past season seems to have been the most severe for many years. In parts of Arkansas and Mississippi all of the green portions of the cotton plants were destroyed in October. Ordinarily this outbreak would have attracted more attention. The peculiar conditions surrounding the cotton crop of the present year, however, were such that the insects' injury was not generally considered important.

TROPICAL AND SUBTROPICAL INSECT INVESTIGATIONS.

C. L. Marlatt, In Charge.

Mr. R. S. Woglum presented at the recent Fruit Growers Convention at Los Angeles a very interesting paper on fruit injury during fumigation, showing that such injury is due principally to the hydrocyanic-acid gas entering through abrasion or accidental injury to the fruit rather than to emanations of sulphuric acid.

Mr. W. W. Yothers is reporting some very satisfactory demonstration orchard results in the control by sprays of the white fly and rust mite.

Mr. J. R. Horton's work in the New Orleans citrus district, principally with the Argentine ant, is developing control results of much promise.

Mr. J. D. Neuls will conclude his life-history studies of date scale insects at Mecca by the end of this year and will then resume his former detail as an assistant in the citrus fruit laboratory at Pasadena with Mr. Woglum. This laboratory is the one formerly located at Whittier.

Mr. E. R. Sasscer, formerly with this service in the Bureau of Entomology, is now making a trip of inspection for the Federal Horticultural Board which will include all the ports of entry along the Mexican border of the United States, in relation to the Mexican fruit-fly quarantine and will later visit the special experimental stations under tropical and subtropical insects at Mecca and Pasadena, concluding his trip with an inspection of the Department's introduction garden at Chico, Cal., and after his return probably several introduction gardens in Florida.

Mr. E. W. Rust, a graduate of Leland-Stanford University and for a period an assistant of Mr. Townsend's in Peru, has joined the inspection service of the Federal Horticultural Board, and will assist Mr. Sasscer and Mr. Sanford, the latter with the Bureau of Entomology, in this work.

MEDITERRANEAN FRUIT-FLY INVESTIGATIONS.

Messrs. Back and Pemberton have submitted several papers reporting progress in this investigation. These papers will shortly appear as Department bulletins or in the Journal of Agricultural Research. The investigation has been broadened to include the melon fly (*Batrocera cucurbitae* Ckll.), and the fruit-fly quarantine of Hawaii has also been reissued to include this latter insect with the Mediterranean fruit fly. Mr. Leister, formerly in the Washington service, but stationed for the last two years in Honolulu as office aide to Dr. Back, has returned to the Washington service.

TRUCK CROP AND STORED PRODUCT INSECT INVESTIGATIONS.

F. H. Chittenden, In Charge.

Mr. Thomas H. Jones, formerly Entomological Assistant and later Collaborator, has resigned his position at Rio Piedras, Porto Rico, and is now stationed at Baton Rouge, La., for the study of insects injurious to truck crops and stored products in Louisiana, in cooperation with Mr. E. G. Tucker, State Entomologist.

Mr. A. B. Duckett, Scientific Assistant, is engaged in a preliminary investigation of the so-called "Argentine corn weevil" in New York City and vicinity.

Mr. F. M. Wadley, temporary Field Assistant during the summer, has returned to his duties as student at the State Agricultural College, Manhattan, Kansas.

Mr. Wm. B. Parker, formerly Entomological Assistant engaged in investigations of insects injurious to sugar beets, hops and stored products, has severed his connection with the Bureau of Entomology and is now engaged as agricultural adviser of the University of California, with headquarters at Ventura, Cal. Mr. Roy E. Campbell assumes the position made vacant by Mr. Parker at the Sacramento station.

Mr. H. M. Russell, has been granted indefinite leave of absence and expects to engage in farming in the vicinity of Phoenix, Ariz., where he was formerly stationed as Entomological Assistant.

Mr. J. W. Bailey, who has been engaged for a large part of the season in investigations of the onion thrips and other insects in southern Texas, has returned to the Mississippi Agricultural College to resume his studies.

This branch is installing a greenhouse 16 feet 8 inches by 33 feet 10 inches in the yard of the insectary, to be used for experiments with greenhouse insects, including their control by means of fumigants and other remedies, and is expected to afford much greater opportunity for testing of insecticides against the more difficult pests to control.

The self-propelled onion sprayer is being tested at the Arlington farm in Virginia and will soon be prepared for shipment to Texas, where it is expected a series of tests will be conducted on a large scale with regard to its effectiveness.

